REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

Regarding EP 1,319,992 Applicants note that it was published on June 18, 2003. Applicants previously provide a Certified English Translation of JP 2002-205196 filed on July 15, 2002, in order to perfect their claim to priority. Claims 8 and 15 have been amended as supported by the priority document. Thus, the rejection over EP '992 should be withdrawn.

Further, the present invention as set forth in **Claim 1** relates to an external additive for a toner for electrophotography comprising:

oxide fine particles which contain silicon, wherein the oxide fine particles have a primary particle diameter of 30 nm to 300 nm in number average, **a standard deviation σ of a particle size distribution of the primary particle diameter satisfies a relation of: $R/4 \leq \sigma \leq R$,** in which the R expresses the primary particle diameter, the oxide fine particles are substantially spherical having a circularity SF1 of 100 to 130 and a circularity SF2 of 100 to 125, the circularity SF1 is defined as an equation (1) and the circularity SF2 is defined as an equation (2);

$$SF1=(L^2/A) \times (\pi/4) \times 100 \qquad \text{equation (1)}$$

$$SF2=(P^2/A) \times (1/4\pi) \times 100 \qquad \text{equation (2)}$$

wherein "L" expresses the absolute maximum length of the oxide fine particles; "A" expresses a projected area of the oxide fine particles; and "P" expresses a maximum perimeter of the oxide fine particles.

It is clear from Figures 1 and 2 of Barder (US '369) that Barder's particles are spherical silica particles having a **uniform particle size**. On the other hand, particles of the subject application are characterized by its **broad particle size distribution**, which is evident

from the value of the standard deviation σ of the particle size distribution. It is possible to process the images of Figures 1 and 2 of Barder to calculate the value of σ. In that case, the value of σ of Barder will clearly fall out of the range defined by the subject application.

Regarding Inokuchi, the applicants consider that the Examiner's assertion that the particles having the same composition must have the same properties lacks foundation. In fact, even ordinary pulverized silica has various average particle sizes in its product lineup such as 10 nm, 15 nm, 20 nm and 50 nm. These products have different properties depending on the particle sizes, and it is customary to use separate products according to purposes. It is indeed true and easily guessed that silica particles have different properties by controlling the shape, particle size and particle size distribution.

As exemplary evidence, the following URLs are web pages provided by Nippon Aerosil Co., Ltd. disclosing various types of silica products (hard copies of these web pages are enclosed).

Japanese Page:

https://wwwl.sivento.com/wps/portal/p3/kcxml/04_sj9SPykssy0xPLMnMz0v M0Y_QjzKL94g39DEDSYGZFj76kShi7vEBhgghX4_83FT9oKxEfW_9AP2C3NCIckdHR QD UimJ5/delta/base64xml/L3dJdyEvd02NQUFzQUMvNE1VRS82X0fMUw2?content=i nbc://wcms/ja/aerosil/produktgruppen/hydrophob.html

Corresponding English Page:

https://www1.sivento.com/wps/portal/p3/kcxml/04_Sj9SPykssy0xPLMnMz0v M0Y_QjzKL94g39DEDSYGZFj76kShi7vEBhgghX4_83FT9oNQ8fw_9AP2C3NCIckdHRQ C _X57/delta/base64xml/L3dJdyEvd0ZNQUFzQUMvNE1VRS82X0hfMUw2?content=i nbc://wcms/en/aerosil/produktgruppen/hydrophob.html

It may be seen from the above web pages that silica particles vary in their physical properties depending on the particle shapes and sizes.

Yamashita, Ishiyama, Kuramoto and Ichimura do not cure the defects of Inokuchi.

Therefore, the rejections of the Claims over Barder and Inokuchi combined with Yamashita, Ishiyama, Kuramoto and Ichimura are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The rejection of Claims 6 and 8 under 35 U.S.C. § 112, 2nd paragraph, are obviated by the amendments of these claims.

The objections to the specification are obviated by the amendment of the specification.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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Hydrophobic Fumed Silicas

AEROSIL® grades	BET Surface Area [m²/g]	Loss on Drying [wt. %]	pH	Carbon Content [wt. %]
AEROSIL® R 972	110 ± 20	≤ 0.5	3.6 - 4.4	0.6 - 1.2
AEROSIL® R 974	170 ± 20	≤ 0.5	3.7 - 4.7	0.7 - 1.3
AEROSIL® R 104	150 ± 25	-	≥ 4.0	1.0 - 2.0
AEROSIL® R 106	250 ± 30	-	≥ 3.7	1.5 - 3.0
AEROSIL® R 202	100 ± 20	≤ 0.5	4.0 - 6.0	3.5 - 5.0
AEROSIL® R 805	150 ± 25	≤ 0.5	3.5 - 5.5	4.5 - 6.5
AEROSIL® R 812	260 ± 30	≤ 0.5	5.5 - 7.5	2.0 - 3.0
AEROSIL® R 812 S	220 ± 25	≤ 0.5	5.5 - 7.5	3.0 - 4.0
AEROSIL® R 816	190 ± 20	≤ 1.0	4.0 - 5.5	0.9 - 1.8
AEROSIL® R 7200	150 ± 25	≤ 1.5	4.0 - 6.0	4.5 - 6.5
AEROSIL® R 8200	160 ± 25	≤ 0.5	≥ 5.0	2.0 - 4.0
AEROSIL® R 9200	170 ± 20	≤ 1.5	3.0 - 5.0	0.7 - 1.3

The data have no binding force. Any parameter should be specified individually if necessary.

=> Productinformation and Safety Data Sheets (MSDS) can be displayed or downloaded as a pdf-file at the Productfinder

Numerous grades of hydrophobic AEROSIL® have been developed to solve particular technical problems. AEROSIL® Hydrophobic Fumed Silicas are produced by chemical treatment of hydrophilic grades with silanes or siloxanes. In the finished product, the treatment agent is chemically bonded to the previously hydrophilic oxide. AEROSIL® hydrophobic products are characterized, among other things, by a low moisture adsorption, excellent dispersibility, and their ability to adjust the rheological behavior, even that of polar systems.

AEROSIL® grades, like R 7200, R 8200 and R 9200, undergo additional structural modification which makes it possible to offer further support to our customers in the develop- and enhancement of their products. An example of this could be higher loading levels in liquid systems with little impact on viscosity.

Positive Effects:

- Optimum rheology during processing
- Thickening of polar liquids, e.g. epoxy resins
- Reinforcement of silicone elastomers
- High levels of loading, e.g. molding compounds
- Excellent water-repelling properties, leading to improved corrosion protection

- Improvement of dielectric properties, e.g. in cable compounds
- Free-flow of powders, e.g. in fire extinguishers
- Increased scratch resistance, e.g. in paints and plastics

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